

# Commonsense Socio-Cultural Models for Culture Training in Serious Games (CultureCom)

**Monthly Report for Period: March, 2011**  
**Submitted on: April 8, 2011**

Agency:	ONR
Contract:	NOOO14-09-C-0613
CDRL:	None

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## Report Documentation Page

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## 1 TECHNICAL PROGRESS/SIGNIFICANT ACCOMPLISHMENTS AND EVENTS OVER THE CURRENT REPORTING PERIOD (PLUS HISTORIC PROGRESS)

March 2011

- Work proceeded on tasks from the new SOW
- Background research on language, culture 2: Colombian Spanish
  - Data development by Dr. Michael Agar resulted in written summary of cultural points of difference for Colombia and Afghanistan
  - Extension of the coverage of the microsocial model by Dr. Jerry Hobbs
  - Preliminary design of the user experience for October 2011 prototype with key “value-added” capabilities

February 2011

- Internal kick-off completed February 3-4 in Los Angeles, with all team members
- Presented work on this project in talks at HSCB Focus 2011 conference, February 7-10
  - Lewis Johnson: Model-Based Cultural Competence Training
  - Alicia Sagae: Usability in MMT for Up-To-Date Cultural Competence Training
  - LeeEllen Friedland: Front-End Validation of Data for Micro-Social HSCB Models
- Current work is pending approval of the new SOW

January 2011

- Created Development Scenario for project year two, CDRL A001 (update)
  - Submitted with this report
- Updated the project Statement of Work to reflect expected resources for March-October 2011
  - Submitted separately by email to Dr. Ivy Estabrooke, cc: Gary Kollmorgen and Clark Phillips
  - Includes updated spend plan, also submitted with the SOW by email

December 2010

- Caught up invoicing against funding increment received on November 30, 2010
- Started work on updated spend plan and deliverables schedule to accommodate 2010 funding gap

November 2010

- Project activity has been on hold pending funding for project year two
- On November 30, received new funding increment covering at-risk work executed in September and October 2010

October 2010

- Prepared submission for exhibition booth at HSCB Focus 2011 conference
- Other project activity is on hold pending funding for project year two
- Please note the updated contact information for our financial team: Izett Barnett, Director of Finance (ibarnett@alelo.com)

September 2010

- Participated in ONR Capabilities Open House, September 20-21, 2010
- Other project activity is on hold pending funding for project year two

August 2010

- Completed year 1 Technical Performance Evaluation (TPE) in Arlington, VA
- Started preparations for ONR Capabilities Open House in September 2010

July 2010

- Completed year 1 evaluation and submitted evaluation report (CDRL A005)
- Submitted update to TCA design doc (CDRL A003)
- Submitted update to culture model document (CDRL A002)

June 2010

- Implemented test cases that can be run in the framework completed last month
- Continuing development of behavior rules to pass these test cases
- Continuing development work for Culture Model and TCA Design
- Outlined year 1 evaluation report and assigned writing tasks

May 2010

- Updated Model Design Document and Evaluation Design Document from April 2010 deliverables, according to follow-up discussion with Dr. Ivy Estabrooke (attached)
- Introduced and trained new student intern who will work on the evaluation team between May and August, 2010
- Implemented testing framework to support evaluations outlined in CDRL A004

April 2010

- Prepared and submitted updates to the Microsocial Model Document (CDRL A002) and TCA Design Document (CDRL A003) on schedule, on April 30, 2010
- Prepared and submitted Year 1 Evaluation Criteria (CDRL A004), on schedule, on April 30,

2010

- Annotated test dialogs with gold-standard logical axioms for year 1 evaluation
- Updated the publication inventory (submitted with this report)

March 2010

- Continued data development on interview material from SME2
- Identified test dialogs for year 1 evaluations and defined test cases over these dialogs
- Started implementation of the test cases and preparation of the year 1 evaluation criteria document
- Continued implementation work for TCAs and preparation for the updated TCA document due in April
- Continued extension of the microsocial model and preparation for the updated model design document due in April
- inventoried publications that have been produced on this project so far (submitted with this report)

February 2010

- Prepared for and presented 6-month review with ONR in San Francisco, CA on February 9th
- Prepared a revised budget with justification and submitted to ONR on February 18<sup>th</sup>
- Prepared an updated revised budget with new FY2010 spend target of \$250,000; budget is now under review by financial team and will be submitted this week (before 3/12/2010)
- Data collection: performed data development on interview material from SME 2

January 2010

- Data collection: conducted initial interview with SME 2, screened candidates for SME 3
- Started implementation work based on the TCA design document delivered in December
- Prepared materials for 6-month review meeting in San Francisco, CA in early February 2010

December 2009

- Delivered first draft of culture model document (CDRL A002) on December 24, 2009
- Delivered first draft of TCA design document (CDRL A003) on December 24, 2009
- Started scheduling for 6-month review meeting in San Francisco, CA in early February 2010

November 2009

- Reviewed Data Collection process with Alelo Culture Team and Dr. Agar; revised Data Requirements Document (DRD); extracted sample dialogs from dry-run data collection executed in October; created data-collection schedule for December 2009-March 2010:
  - **December 2009:** Polish Interview Protocol Document (IPD) with input from Mike Agar; conduct follow-up interview with SME 1 (dry-run SME); complete the

- technical design document and culture model; schedule phone conference with ONR on cross-cultural competencies.
- **January 2010:** Extract dialogs from follow-up interview with SME 1; choose 2 additional SMEs and schedule initial and follow-up interviews.
- **February-March 2010:** conduct interviews and extract 20-30 dialogs from SME 2, SME 3; identify development and test dialogs for year 1 evaluations; update dialogue system and design documentation based on this data.
- Created first draft of culture model document for deliverable in December, 2009
- Implemented prototype of text-based conversational agent (TCA) dialog loop and created first draft of design document for deliverable in December, 2009
- Prepared article for Scientist spotlight in January HSCB Newsletter

October 2009

- Held quarterly in-person meeting with all subcontractors and team members on October, 27 2009 in Los Angeles
- Completed in-house review/collection of cultural data resources for Afghanistan with their IRB-relevant information
- Created a Data Requirements Document (DRD) to describe the needs for additional data collection
- Created a draft Interview Protocol Document (IPD) that defines procedures for collecting data described in the DRD in interviews with Subject-matter experts
- Executed a dry-run of the IPD with Alelo consultants serving as native-speaker language experts in Pashto
- Continued work on alignment between RACCA WG cultural learning objectives and project objectives

September 2009

- Held kick-off meeting at ONR on 8 September, 2009
- Started in-house review/collection of cultural data resources for Afghanistan with their IRB-relevant information
- Initiated negotiation of an appointment to observe a lane training session at 29 Palms in order to collect additional first-person accounts and sample dialogs from human role-players
- Received documentation of the RACCA WG cultural learning objectives from Dr. Allison Abbe and started work on alignment between these objectives and the objectives for the CultureCom project
- Continued to perform background cultural research and work on the first draft of axioms and concepts for the culture model that supports our Year 1 Development Scenario

August 2009

- Completed contract negotiations with project start date 31 July, 2009
- Selected geographic area of focus and tasks of focus for year 1

- Created and submitted Year 1 Development Scenario (CDRL A001)
- Prepared materials for kick-off meeting 08 September, 2009

## 2 OUTSTANDING/ANTICIPATED ISSUES AND SOLUTIONS TO THOSE ISSUES

March 2011

- Current funding expended, accounting for delayed invoices from subcontractors that are expected to arrive in April
- Project was instructed 29 March 2011 to stop work on current SOW and prepare a final report

February 2011

- Current funding ends in March
- Continued work on the project is pending approval of the updated SOW
  - Along with new funding increment to support the work described in SOW

January 2011

- Continued work on the project is pending approval of the updated SOW and receipt of a new funding increment to support the work described there

December 2010

- The project schedule is likely to be delayed by 90-120 days total in the revised project plan, which accounts for work stoppage due to funding gaps

November 2010

- The project schedule is likely to be delayed by 90-120 days total in the revised project plan, which accounts for work stoppage due to funding gaps

October 2010

- The project schedule is likely to be delayed an additional 30 days (60-90 days total) once activity resumes, pending year two funding

September 2010

- The project schedule is likely to be delayed an additional 30 days (60-90 days total) once activity resumes, pending year two funding

August 2010

- The schedule for project year two will be delayed by 30-60 days, due to the following issues
  - Insufficient time was planned in the August schedule to accommodate year-end travel and reporting for year one along with year-two kickoff activities; however, the year-end activities were worth the investment in time since they resulted in helpful communication with the sponsors that we will apply going forward
  - The current funding increment has ended (at time of writing we have approximately two weeks left, depending on level of effort)
  - We are moving our staff to other projects for the time being, but we plan to be ready to start CultureCom work again as soon as funding permits

July 2010

- No known issues

June 2010

- No known issues

May 2010

- No known issues

April 2010

- No known issues

March 2010

- No known issues

February 2010

- No known issues

January 2010

- No known issues

December 2009

- No known issues

November 2009

- We have not yet received invoices from the University of Southern California, a subcontractor on this project. As a result the hours worked by USC have not yet been charged to the spend plan. However we do expect to receive an invoice in the month of December which will correct our spending with respect to the plan.

October 2009

- Alelo resolved the spend plan issue from last month by completing a revised spend plan; submitted to ONR and SA, Inc. by email on 26 October, 2009
- We have not yet scheduled a phone conference with ONR on the topic of cultural learning objectives; We engaged or collaborators on this project, both subcontractors (Dr. Michael Agar) and other colleagues (Dr. LeeEllen Friedland) in discussions of this topic and we are ready to schedule the conference for the month of November at ONR's convenience

September 2009

- Spend plan should be revised and we have already started this work; original spend plan assumed a constant rate of expenditures, when in fact the costs during the initial months will be lower while costs during software development and integration months will be higher; we are working on a revised spend plan that reflects this change in our method of estimation as well as new hires that we plan to take on for the upcoming software development phase

August 2009

- No known issues

### 3 FUTURE SIGNIFICANT EVENTS

March 2011

- Pending phone conference with sponsors, new research will stop on the project and effort will shift to producing a project final report, addressing future directions:
  - How to expand to a complete Pashto (Afghanistan) training system
  - Time and resources required to move from English to Pashto for the Aftghanistan culture system
  - Time and resources required move from Afghanistan to a 2nd culture of interest at lowest cost possible and at lowest time possible

February 2011

- Pending approval of the new SOW:
  - Recruitment of Subject Matter Experts for ethnographic interviews
  - Technical review of results from year one and start of design work for year two prototype
  - Background research and information gathering by the culture modeling team

January 2011

- Internal kick-off scheduled for February 3-4 in Los Angeles, with all team members
- Project-related presentations will be given at HSCB Focus 2011 Conference February 7-10
- Future work is pending approval of the new SOW
  - Recruitment of Subject Matter Experts for ethnographic interviews
  - Technical review of results from year one and start of design work for year two prototype
  - Background research and information gathering by the culture modeling team

December 2010

- Project-related presentations will be given at HSCB Focus 2011 Conference in February
- Updated project plan is still under development to identify year two activities that may be funded with current increment
- Project year two internal kick-off is likely to occur in January 2011

November 2010

- Updated project plan will be produced in December to identify year two activities that may be funded with current increment
- Project year two internal kick-off is likely to occur in January 2011

October 2010

- Project year two internal kick-off may occur in November or December 2010

September 2010

- Project year two internal kick-off may occur in November 2010

August 2010

- Dry-run on September 10<sup>th</sup> for the ONR Capabilities Open House
- Pending dry-run results, ONR COH on September 20<sup>th</sup>-21<sup>st</sup>

July 2010

- Technical Performance Evaluation (TPE) will be held at MITRE on August 11, 2010

June 2010

- Remaining milestones (internal and external) for July:
  - Populate a series of test cases from the Year 1 evaluation dialogs (Completed)
  - Populate TCA rule instances based on these test cases (7/8)

- Calculate metrics from the evaluation criteria document over these test cases (7/16)
- Generate and submit report documents with evaluation results (7/31)

May 2010

- Next external milestone is evaluation results with a year-1 final report in July, 2010
- Internal milestones for June and July:
  - Populate a series of test cases from the Year 1 evaluation dialogs (6/24)
  - Populate TCA rule instances based on these test cases (7/8)
  - Calculate metrics from the evaluation criteria document over these test cases (7/16)
  - Generate and submit report documents with evaluation results (7/31)

April 2010

- A student intern will join our team starting in May, 2010. His work will focus on implementation of the evaluation dialogs using TCA behavior rules, and on supporting our year 1 evaluation experiments and written reports.

March 2010

- Next milestone is evaluation criteria with updated TCA design and culture model, due April 30, 2010

February 2010

- Next milestone is evaluation criteria with updated TCA design and culture model, due April 30, 2010

January 2010

- 6-month review meeting scheduled for Tuesday, February 8<sup>th</sup> in San Francisco, CA.

December 2009

- We have been in contact with Dr. Allison Abbe regarding our follow-up phone conference on cross-cultural learning objectives and we hope to have an opportunity to talk with her this month (January 2010).

November 2009

- Drafts of the Culture Model and the TCA Design document are due to be submitted to ONR in December, 2009
- Please note: the Alelo address and phone number have changed. Updated contact information is given on the cover page of this Monthly Report, and repeated here for convenience:

Alelo  
12910 Culver Blvd. Suite J  
Los Angeles, CA, 90066  
Telephone (for Alicia Sagae): 310-574-7528

October 2009

- Current data collection efforts using the DRD and IPD described in Section 1 should result in additional example dialogs becoming available
- These dialogs will be used to focus our current development work on the Culture Model and the Text-based Communicative Agents Design Document (TCA Design); drafts of these documents are due to be submitted to ONR in December, 2009

September 2009

- A visit to the live training simulations at 29 Palms will hopefully take place in October or November 2009.
- An internal project meeting with all collaborators is scheduled for October 26, 2009.

August 2009

- The project kick-off meeting at Strategic Analysis scheduled for 08 September, 2009.

#### **4 TOTAL MONTHLY BILLED EXPENDITURE DOLLAR AMOUNTS AND INCLUDE COPIES OF "ACTUAL INVOICES" SENT FOR PAYMENT WITH THIS REPORT.**

Expenditures for the month of March 2011

FY 2010: \$11,605\*

\* Subcontractor expenditures during March estimated at \$9,700 but have not been invoiced yet

Expenditures for the month of February 2011

FY 2010: \$15,994.47

Expenditures for the month of January 2011 (adjusted to invoice amount)

FY 2010: \$6,565

Expenditures for the month of December 2010

FY 2010: \$1,356

Expenditures for the month of November 2010

Work at risk (self-funded, will invoice if additional funding becomes available): \$211

Expenditures for the month of October 2010

Work at risk (self-funded, will invoice if additional funding becomes available): \$636

Expenditures for the month of September 2010

Work at risk (self-funded, will invoice if additional funding becomes available): \$12,667

Expenditures for the month of August 2010

FY2010 (ACRN AB): \$38,765

FY2009 (ACRN AA): \$70,449

Expenditures for the month of July 2010

FY2010: \$32,935

\*This invoice does not include expenses for June or July for our subcontractor, the University of Southern California. We continue to pursue timely invoicing from USC. Our current estimate of the un-invoiced cost is \$17,024.

Expenditures for the month of June 2010

FY2010: \$31,851

\*This invoice does not include expenses for our subcontractor, the University of Southern California. July expenditures for USC will be combined with August, 2010 expenditures due to a delay in USC posting invoices to Alelo.

Expenditures for the month of May 2010

FY2010: \$21,340

Expenditures for the month of April 2010

FY2010: \$48,011

Expenditures for the month of March 2010

FY2010: \$67,143

Expenditures for the month of February 2010

FY09: \$71,588.99

Expenditures for the month of January 2010 (Note: total billed amount is under budget at this time due to delay in receiving invoices from all subcontractors)

FY09: \$79,759.90 (January and December)

Expenditures for the month of December 2009

FY09: \$0

Expenditures for the month of November 2009 (Note: total billed amount is under budget at this time due to delay in receiving invoices from all subcontractors)

FY09: \$15,791

Expenditures for the month of October 2009

FY09: \$9,531

Expenditures for the month of September 2009

FY09: \$12,020

Expenditures for the month of August 2009

FY09: \$4,446